



Needham Center Study

Community Planning Meeting

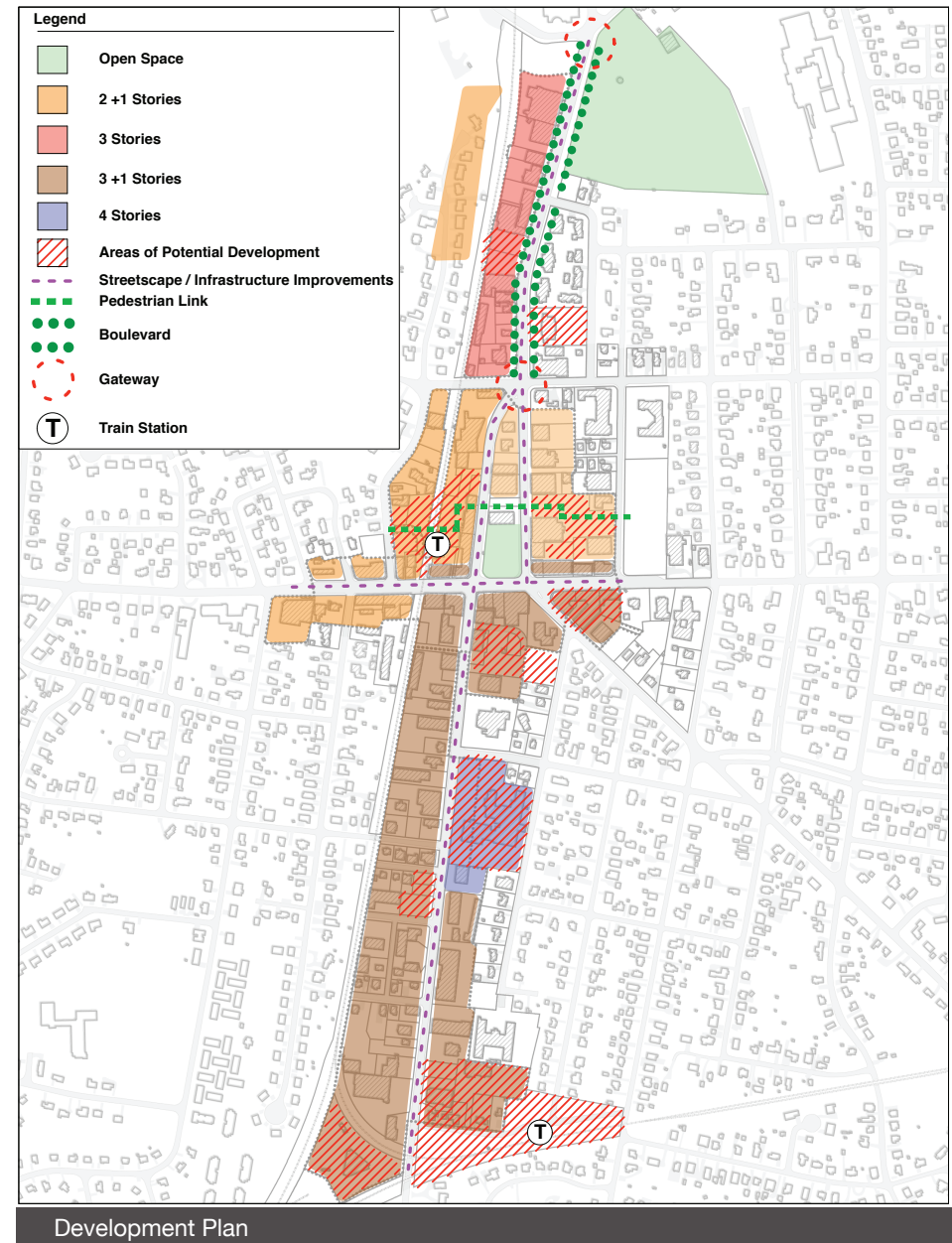
June 25, 2008

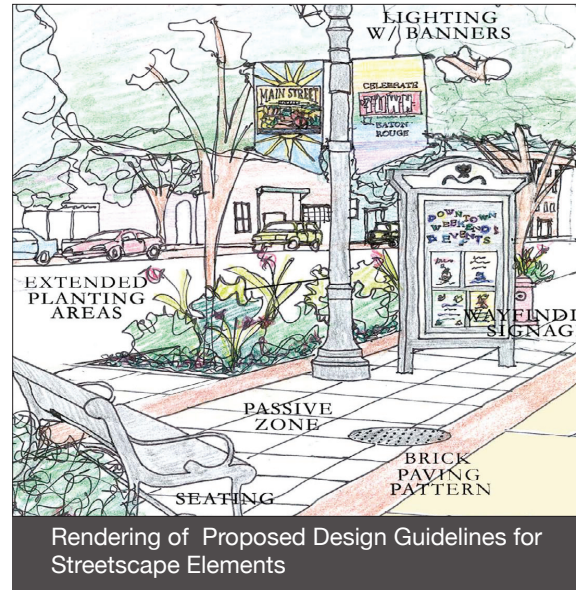
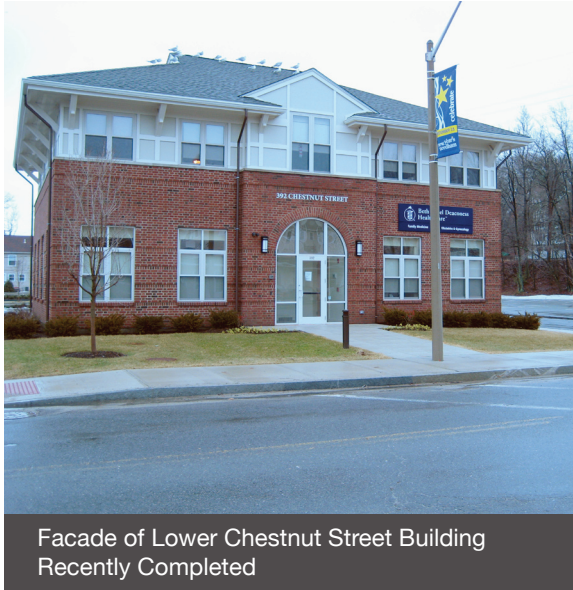
A thriving downtown business district is critical to the Town of Needham. It is an important component to community identity and character, provides shopping and dining amenities, and generates sales-tax revenue and employment opportunities that stimulate the local economy. The Town of Needham has an unprecedented opportunity to reshape development opportunities, zoning, design guidelines and streetscape within the downtown area making Downtown Needham a vibrant destination into the foreseeable future.

The Development Plan conveys the objectives and priorities necessary to foster development as a mixed-use, local downtown business district.

It addresses land use, strategies to encourage new development, parking and traffic issues, zoning changes, enhancement of existing businesses, increased pedestrian activity and protection of adjacent residential areas.

The Development Plan recognizes direct commuter rail service to Downtown Boston as a key asset of Downtown Needham. Both stations in the Study Area, Needham Center and Needham Junction, provide opportunities for transit-oriented development. The Development Plan encourages smart growth projects that are environmentally sensitive, economically viable, community-oriented and sustainable. These projects will reinforce the town center's role as an integral component of a healthy regional economy.





The Development Plan conveys the objectives and priorities of this study which include:

- Encourage new development that creates defined street edges and streetscape improvements conducive to a village environment and a walkable downtown.
- Increased density and building heights.
- Redevelopment of existing buildings and facade improvements.

Design standards are advocated both for public improvements and private development. This report

references and updates the Design Guidelines for Business Districts prepared by the town in 1995. It includes standards for buildings, facades, storefronts and signage. Public improvements encompass street furnishings, town-owned parking lots and the Town Common. The Development Plan incorporates these guidelines and further elaborates where appropriate. It also establishes standards for massing, setbacks and other architectural guidelines.

The rendering above illustrates the range of standards for streetscape elements. The goal of these Design Standards is to create vibrant urban

spaces along the main streets extending out from the Town Common and Town Hall, which serve as the civic center and hub of Downtown Needham.

The enhancement of Downtown's pedestrian character and the addition of amenities will contribute to an active street life. The redevelopment of Chapel Street as shown in the photograph above is one example of a successful enhancement to the streetscape of Needham Center.

Intrinsic to the challenge of making a neighborhood genuinely walkable is providing destinations, such as shops, restaurants and community spaces. However, ensuring that those places are both walkable and economically viable requires a minimum level of development.

Retail destinations located with-in a short walk of residences and offices depend upon pedestrian traffic for their customer base. Higher density development contributes to the viability of a wider range of businesses, ultimately resulting in more destinations that are walkable for residents and workers.

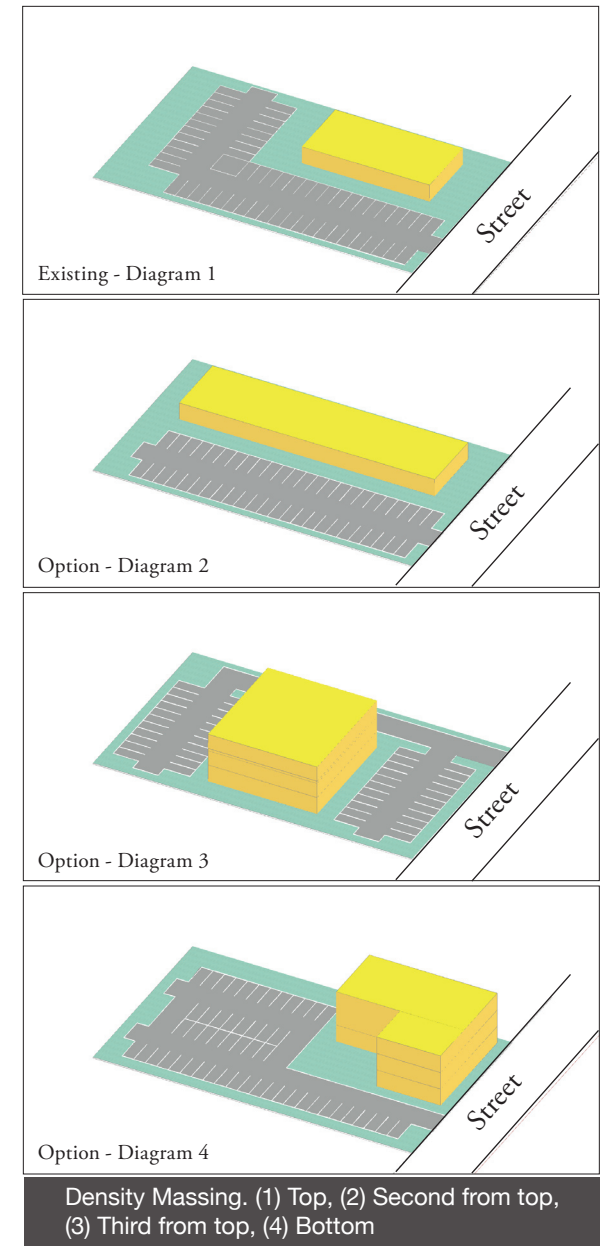
Projects of a village can provide a variety of townhouses, apartments, accessory units and even live-work spaces to accommodate a broader range of lifestyles. This greater range of housing types expands housing choices within a neighborhood and allows residents to choose housing that meets their changing needs and preferences over their lifetime.

Transportation choices give people the freedom to walk, take a bus or train, or bicycle for part or all of their daily travel. Bringing more workers and residents into the town center creates choice by providing the rider-ship needed to make bus and rail transit a viable and competitive transportation option.

More activity as a result of more workers and residents in the town center also has the potential to increase area social interaction and consequently deter crime. The key to improved security is a design that encourages greater neighborhood surveillance and interaction. Well-designed urban neighborhoods create a welcoming pedestrian environment that encourages neighbors to meet and “take ownership” of their common spaces.

Increasing the size of development in Downtown Needham will encourage economic vitality and redevelopment of properties. Furthermore, increased size and massing provides the opportunity to better define and improve the village spaces of Downtown along the major streets.

The Development Plan proposes new zoning regulations to encourage massing that helps define the street edge and serve as a backdrop to the streetscape. Diagram 1 shows existing massing and parking of a prototypical property. Diagrams 2, 3 and 4 show different ways this existing property can be redeveloped. The approach represented in Diagram 4, best serves to improve the urban form of the street by bringing the building to the street and putting parking behind the building.



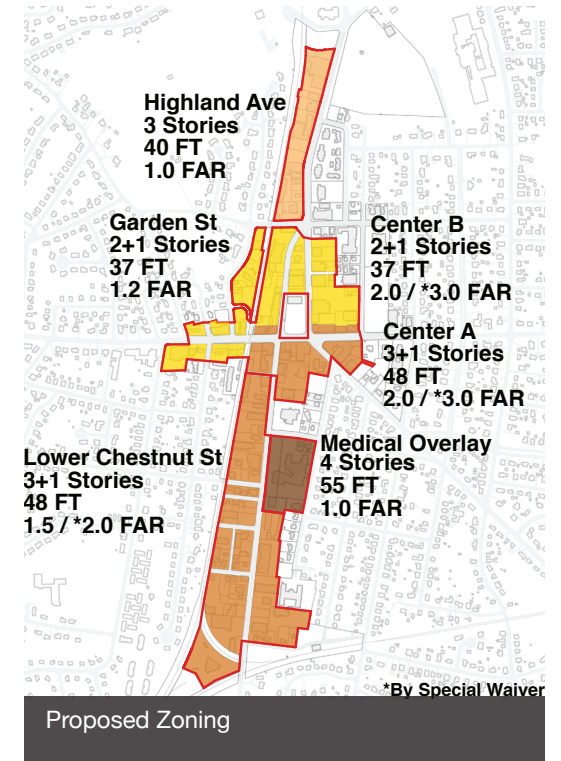
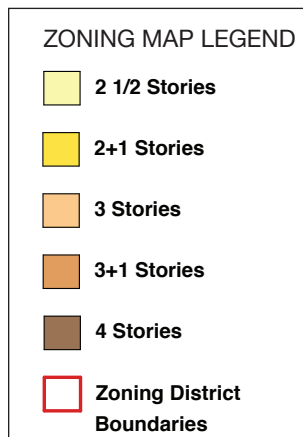
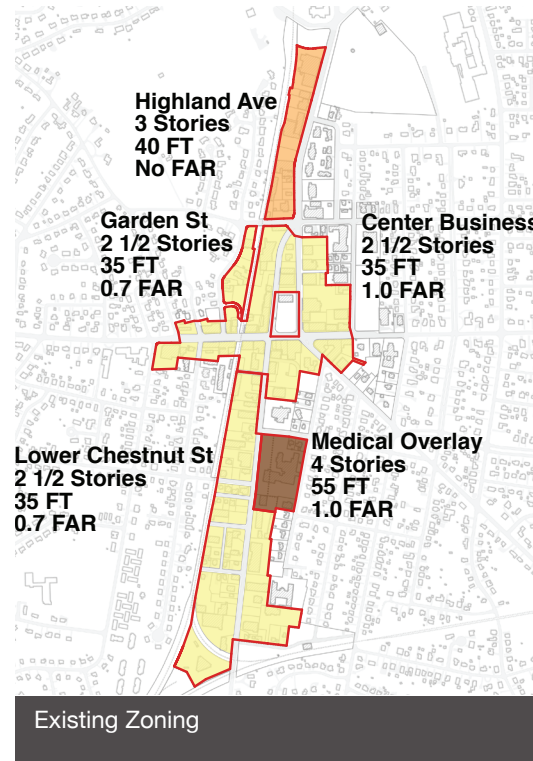
The plans to the right compare maximum allowed number of stories, heights and Floor Area Ratio (FAR) allowed under current zoning regulations compared to that proposed in the Development Plan.

There are a total of four proposed overlay zoning districts with allowed heights & FAR as indicated in the Proposed Zoning plan:

- Needham Center Overlay Sub-District A
- Needham Center Overlay Sub-District B
- Garden Street Overlay District
- Lower Chestnut Street Overlay District

Property owners can still develop their properties as allowed under the existing zoning regulations. However, in order to qualify for the higher development limits, projects would have to meet additional requirements that would benefit Needham Center. Increased height limits of 2+1 stories, or 3+1 stories, where indicated in the plan, allow for an additional story, either under a pitched roof or set back from the building face.

The existing Medical Overlay District is unchanged. Highland Avenue Business District has the unchanged 3 stories / 40 FT height limit but a FAR limit of 1.0 has been added.

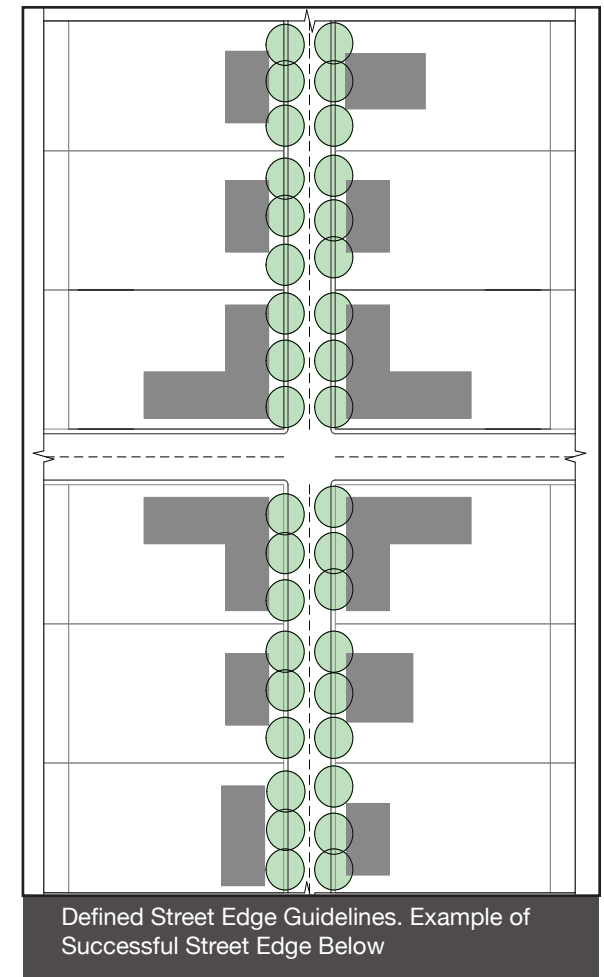
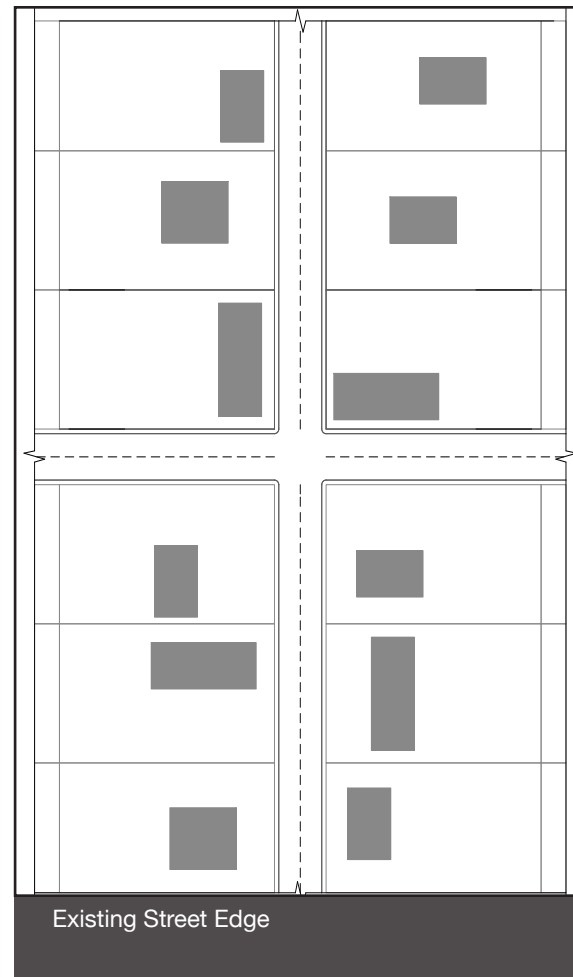


The determination of building heights that front the Town Common on Chapel Street and Highland Avenue were discussed at length by the Downtown Study Committee (DSC). The issue was whether four story buildings immediately adjoining Town Hall would overwhelm its height, scale and civic dominance.

After extensive consideration of these planning and design concerns, the DSC voted to endorse the recommended plan for a 2+1 story height adjoining town hall and a 3+1 story height at Great Plain Avenue and Lower Chestnut Street.

Street Edge

The street edge diagrams to the right show the impact to urban form of the existing massing compared to proposed massing. The existing, scattered placement of buildings, often with parking in front, makes for an unfocused, poorly defined street space. The Development Plan also encourages building to the street edge massing. This approach to massing serves to create a framework for village spaces with an opportunity for streetscape improvements that encourage vibrant and pedestrian friendly environments. The photograph to the right is an example of a successful application of this approach to street edge.





Proposed Street Frontage



Proposed Commercial



Proposed Residential

Development Potential

Redevelopment can be broadly defined as physical changes to existing buildings or building patterns, including new construction, rehabilitation, and facade improvements. Successful redevelopment can extend the downtown onto under utilized sites.

Retail

The Development Plan supports the existing uses of retail stores, services and office space throughout the study area. The most appropriate retail is “main street”, specialty type retail rather than “big box” style stores.

Office

Although there continues to be a variety of office users, the concept plan recognizes a particular niche of medically related office space, whose development will be driven by the current and future demands from Beth Israel Deaconess Hospital and ancillary activities. This is especially evident on Chestnut Street with emerging medical office space, plus other supplementary medical uses scattered throughout the Downtown.

Residential

Residential redevelopment options include the preservation of existing housing stock, development of context sensitive new housing and the conversion of some former commercial or institutional uses to residential. It is important to expand downtown housing choices to establish a stronger customer base for downtown businesses and enhance the character of the Downtown as a 24-hour activity center. Continuing to provide opportunities for affordable housing Downtown is also identified in the Development Plan .



Proposed Mixed Use



Proposed Parking Improvements



Proposed Streetscape

Mixed-Use

Diversity and character can be achieved with a mix of uses both vertically (residential over commercial) or horizontally (residential next to commercial) within the study area. Mixed land uses are critical to achieving a village like setting, and add variety and vitality to commercial centers, neighborhoods, and streets. The addition of residential over commercial provides “eyes on the streets” and plazas at night creating safe spaces. A vertical and horizontal mix of uses in the study area will help achieve the vision for a dynamic center. The Development Plan proposes new commercial development (retail and office), residential development, visitor services, and civic uses.

Parking Consolidation & Improvements

There are many locations throughout the study area where there is the opportunity to consolidate parking and/or provide better management of existing parking. Frequently, there is adequate parking but not where it is needed such as retail spaces. Consideration of a parking fund to help provide better parking management or help fund a parking structure is part of this comprehensive approach.

Streetscape Improvements

To make Downtown Needham more walkable, locations have been identified where sidewalks can be widened and where pedestrian links should be established and/or enhanced. Specific guidelines for streetscape identify minimum sidewalk widths, areas for sitting or outdoor dining, landscaping standards, uniform signage, pedestrian scale, and attractive lighting.

The following discussion includes some of the highlights of potential development in the three districts that comprise the study area.

Center Business District

Setbacks

The proposed Walgreens parking lot is an opportunity for private/public redevelopment partnership for parking and east/west pedestrian connections.

The Chestnut Street Parking Lot pedestrian connection to Chestnut Street is a successful public/private project that has improved pedestrian connections.

Center Station provides the opportunity for mixed-use, transit oriented development that takes advantage of convenient access to Downtown Boston. The recently completed mixed-use project, across Great Plain Avenue from the station, includes residential, retail and office use and is an example of the type of project the Development Plan encourages.

The Development Plan proposes an east-west pedestrian link from Center Station to Greene's Field including crosswalks on Chapel Street and Highland Avenue.

Street Edge

The proposed maximum height as shown in the Town Common cross section demonstrates a street edge surrounding Town Common that is measured by the cornice height of Town Hall.



Historic Town Common



Historic Great Plain Avenue



Existing and Proposed Town Common Building Height

Buildings in the circa 1900 Needham village center were similar if not higher than the recommendations of a "2+1" story building with the third floor under an architectural, pitched roof.

Density

The proposed massing enhances the Town Common as an urban space that is the focus and identity of Downtown Needham.

Height

The proposed zoning regulations of the Development Plan increase allowed heights in the Central Business District to 2+1 stories and in certain parts, 3+1 stories. The top floor is allowed if it is either under a pitched roof or set back.

Chestnut Street Business District

Setbacks

This district has two separate areas with different characteristics, Lower Chestnut Street and Garden Street. Existing setbacks from adjacent residential districts are maintained, such as the residential district to the east of Lower Chestnut Street Business District. The Garden Street District is proposed to have a density less than Lower Chestnut Street in response to its significant adjacency with the residential district to the west. No changes are proposed to the existing zoning for the Medical Overlay District (MOD), which overlaps the Lower Chestnut Street Business District. Significant development in the MOD is anticipated in the planned, two phase expansion of the Hospital. This development will have an impact on development throughout the Lower Chestnut Street Business District.



Proposed Mixed-Use Development Along Chestnut Street

Street Edge

The existing poorly defined urban space along Chestnut Street is contrasted with what is identified in the proposed Design Guidelines which encourages a well defined urban space with public improvements to the streetscape on Chestnut Street.

Density

Proposed zoning will encourage new development to bring buildings to the street front with higher density and massing that better define the urban space along with public improvements to the streetscape to make a more vibrant, walkable corridor compared to the existing development which is scattered.

Height

The proposed zoning regulations of the Development Plan increase allowed heights in the Lower Chestnut Street Business District. The two separate areas that comprise the Chestnut Street Business District, Lower Chestnut Street and Garden Street, have different proposed maximum heights because of the different nature of these two areas. At Lower Chestnut Street, there is an allowance for 3+1 stories (A fourth story allowed if under a pitched roof or set back from the building face). The Garden Street Overlay District allows increases from 2 1/2 stories to 2+1 stories.

Highland Avenue Business District

Setbacks

The focus of this district is the development of Highland Avenue as a boulevard leading into Downtown. The Development Plan proposes to enhance Highland Avenue through the coordination of the planned improvements to Memorial Park with streetscape improvements to Highland Avenue. A design rendering to the right suggests how the planned retaining walls as part of the Memorial Park project complement the desired boulevard qualities of Highland Avenue.



Proposed Streetscape

Street Edge

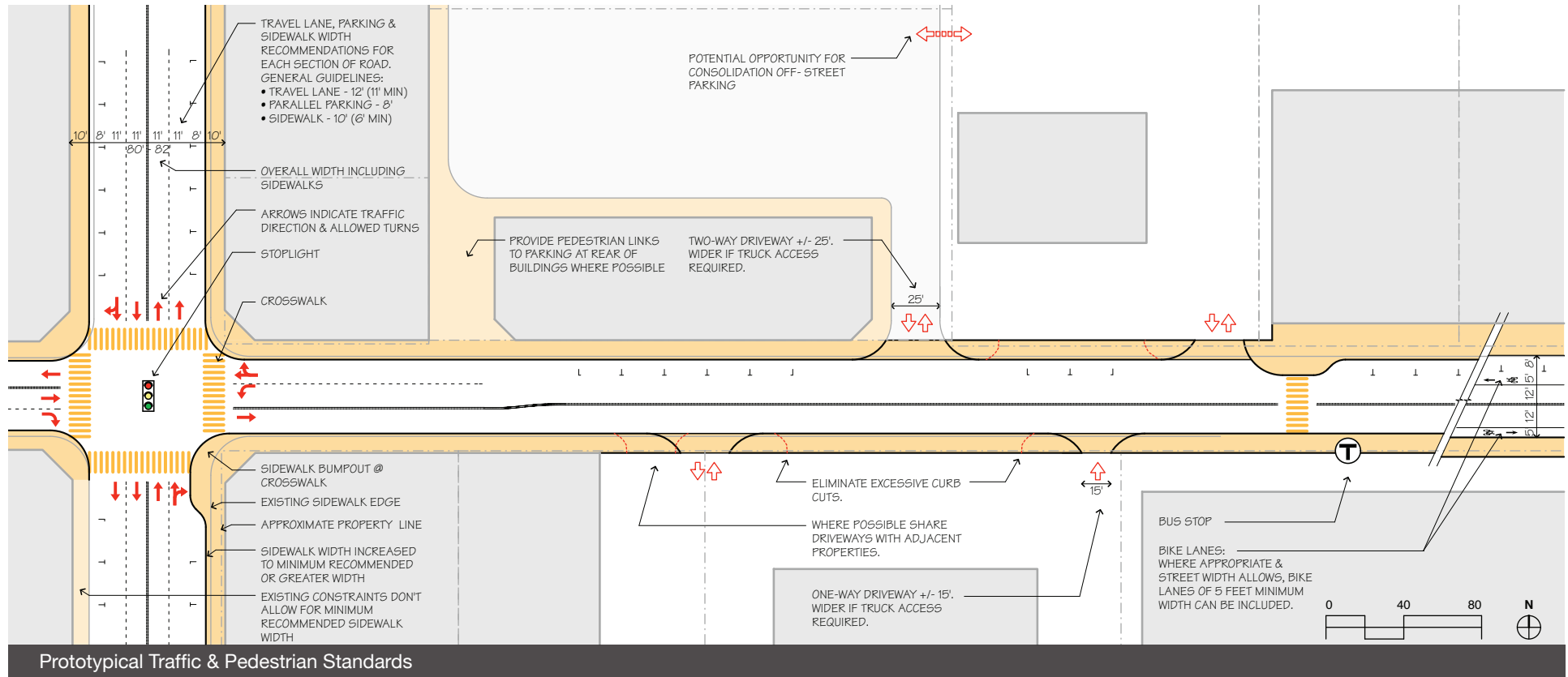
In addition to streetscape improvements to complement the Memorial Park renovations, the plan identifies other streetscape improvements along the entire length of Highland Avenue such as cross walk locations, curb cuts, screening from parking lots and expanded sidewalks.

Density

A FAR of 1.0 is proposed to be added to the zoning regulations for this district.

Height

Maximum heights in the Highland Avenue Business District are proposed to remain the same.



The Design Guidelines include recommendations for improvements to roads, parking, sidewalks and pedestrian links. These recommendations are documented in a plan of the study area. This plan is meant to serve as a master plan for coordinating traffic and pedestrian improvements. This plan is not a final design. No changes will be made without consulting property owners. These recommendations will be referred to when proposed projects are reviewed by the Town.

The objectives of these recommendations are:

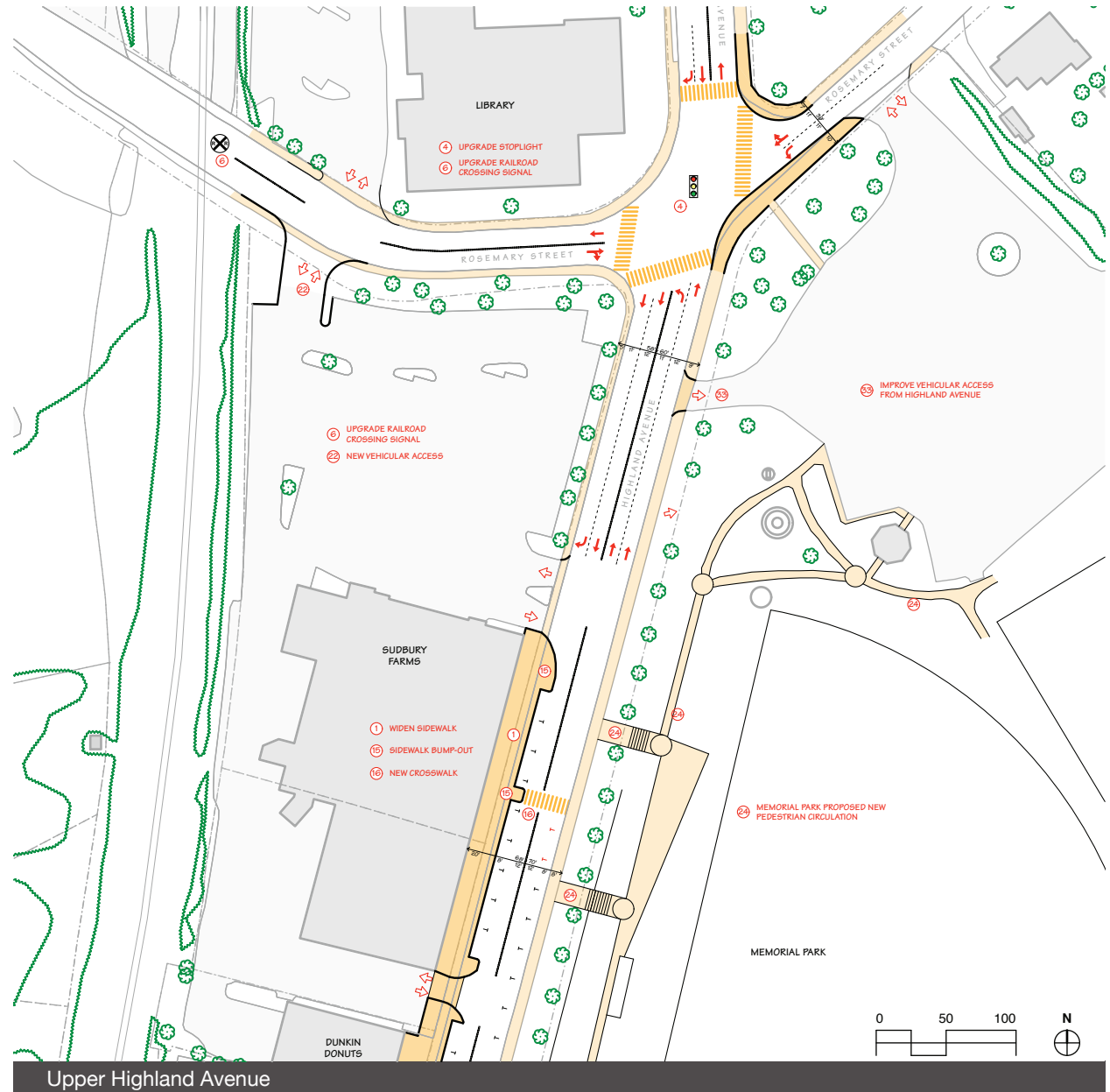
- Improvements for increased traffic and pedestrian safety
- Better traffic flow by optimizing lane layouts and traffic signal upgrades
- Consolidation of off-street parking
- Improvements to pedestrian circulation in concert with streetscape and urban form recommendations discussed above

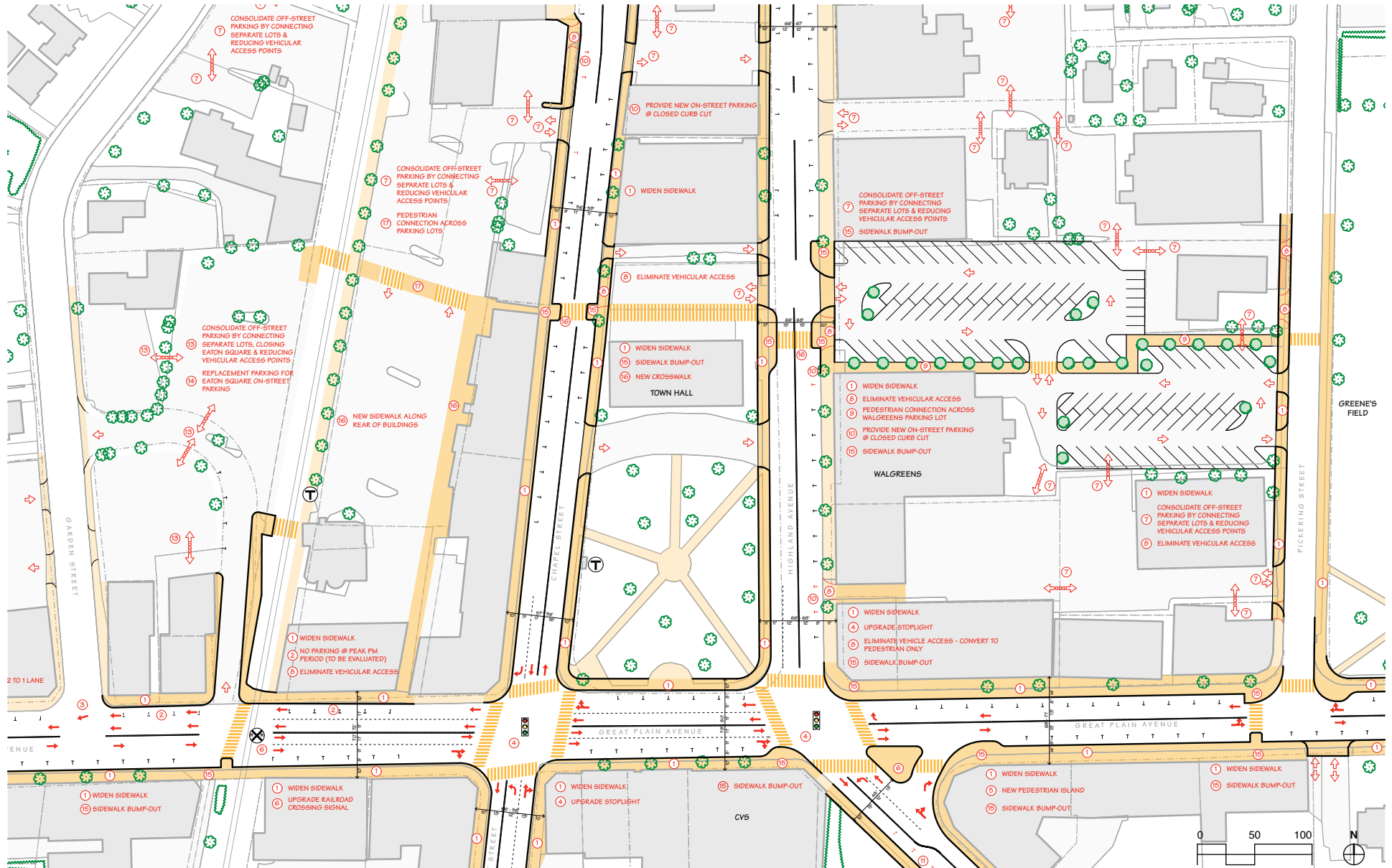
Layout and dimensional standards are documented in the prototypical plan above. This plan serves as a legend to explain the recommendations in the plan of the study area as discussed below. The illustrations show recommendations for crosswalks, sidewalk bumpouts, traffic signal upgrades etc. The plan above also provides dimensional standards for traffic lanes, bike lanes, sidewalks and curb cuts for driveways.

A plan with recommendations for the entire study area at a larger scale is available for review at the Planning Department. An excerpt of the plan from each district is included below.

Highland Avenue Business District

The plan to the right shows the northern most portion of the Highland Avenue Business District. Included in the plan are improvements currently under construction at Memorial Park. Traffic safety can be increased here by the addition of a second vehicular access to the Sudbury Farms parking lot off of Rosemary Street. Pedestrian safety can be improved with the addition of crosswalks from Memorial Park across Highland Avenue to retail businesses along the western side. One crosswalk is shown in the plan to the right and a second one is at the southern corner of Memorial Park.





Needham Center at Town Common / Town Hall

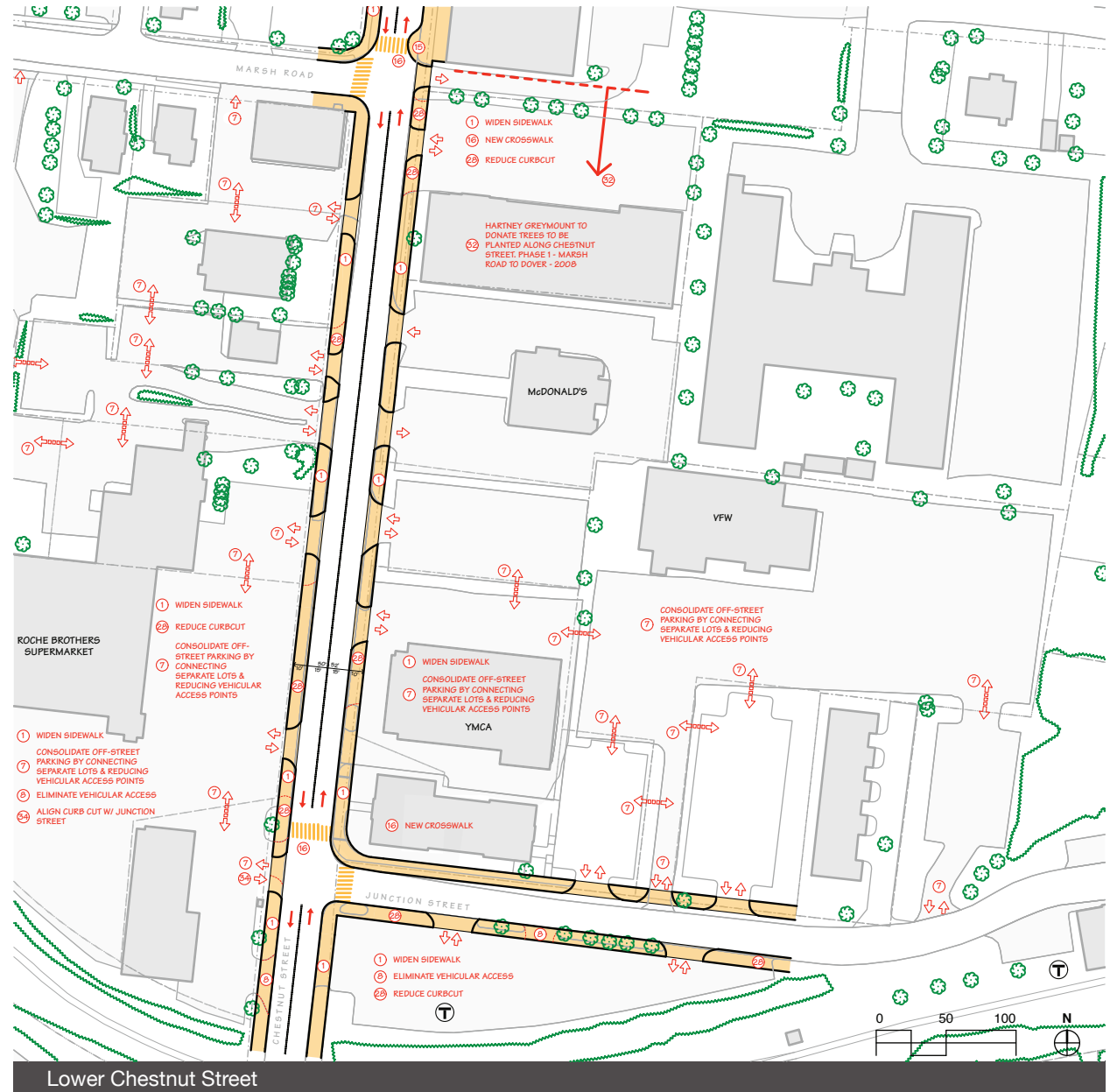
Center Business District

The excerpt from the plan to the left is centered on Town Common and Town Hall. Traffic flow improvements include recommendations for upgraded signals and new traffic lane layouts along Great Plain Avenue, Dedham Avenue, Chapel Street and Chestnut Street. Increased pedestrian safety is provided by improved existing pedestrian crossings and the addition of new mid-block crosswalks.

Review of the existing conditions has shown that many of the sidewalks in this area have the opportunity to be increased in width to at least the minimum recommended 10 feet. The development of a pedestrian link from Needham Station to Greene's Field is also encouraged as shown in the plan. Finally there are many opportunities for consolidation of off-street parking as shown.

Chestnut Street Business District

The excerpt to the right shows the lower portion of Chestnut Street. The plan incorporates the proposed Hospital Expansion project to the north and the Chestnut Street reconstruction and tree planting project from Marsh Road to the south. There is a significant opportunity to consolidate curb cuts and to consolidate off-street parking along Chestnut Street.



District	Existing (SF)	Existing + 100% Effective Buildout (SF)	Existing + 30% Effective Buildout (SF)
Highland Avenue Business District	118,829	147,466	127,420
Center Business District	554,710	768,710	618,910
Chestnut Street Business District	556,147	1,003,983	690,498
TOTAL	1,229,686	1,920,159	1,436,828

* 100% Effective Buildout

1. Includes parcels with > 15,000 SF of land area

2. Includes only those parcels with ≥ 50% expansion potential

Buildout Under Proposed Zoning

A probable (30%) buildout under the proposed zoning shows the likely impact over the next twenty years as summarized in the table above. This projection takes into account a detailed market analysis for retail, office and residential space and the potential redevelopment of existing properties.

A traffic analysis performed on the impact of this buildout is shown in the chart to the upper right. The Level of Service (LOS) at each intersection for existing conditions and various scenarios of development are compared, with A being the best and F the worst. The summary chart to the bottom right includes the corresponding wait times for the projected LOS at key intersections in the study area with the projected 30% buildout, with and without upgraded signals.

With a 30% projected buildout and traffic signal improvements, the chart to the upper right shows the LOS at these six signalized intersections is better than the current existing conditions at five locations and the LOS at the sixth location is equal to current existing conditions.



Peak Traffic Operations at Signalized Intersections. Summary at Key Intersections Below

Intersection	30% Build-Out 2027		30% Build-Out 2027 With Traffic Response System Improvement	
	Level of Service	Delays (Seconds)	Level of Service	Delays (Seconds)
May St / Highland Avenue	E	58.5	D	52.7
Dedham Ave / Highland Ave / Great Plain Ave	D	36.8	C	34.2
Chapel St / Great Plain Ave	D	53.1	D	43.8
School St / Chestnut St	C	25.5	C	21.9

The proposed zoning regulations are written to foster development of Needham Center as a mixed-use, local downtown business district. These proposed

changes will offer developers opportunities to create projects that add to the economic vitality of the desired village environment while also protecting the

quality of adjacent residential areas. The table below and on the following pages summarizes the proposed changes to the existing zoning regulations.

Summary of Existing and Proposed Zoning

	EXISTING			PROPOSED			
Dimensional Standard	Center Business	Chestnut Street	Business	Needham Center Overlay	Lower Chestnut Street Overlay	Garden Street Overlay	Highland Avenue Business
Minimum Lot Area	10,000 sq. ft.	10,000 sq. ft.	10,000 sq. ft.	15,000 sq. ft.	15,000 sq. ft.	15,000 sq. ft.	10,000 sq. ft.
Minimum Frontage	80 feet	80 feet	80 feet	80 feet	100 feet	80 feet	80 feet
Maximum Building Height: By Right	35 feet 2.5 stories	35 feet 2.5 stories	40 feet 3 stories	Sub-District A 35 feet 2.5 stories Sub-District B 2.5 stories 35 feet	35 feet 2.5 stories	35 feet 2.5 stories	40 feet 3 stories
Maximum Building Height: By Special Permit	N/A	N/A	N/A	Sub-District A: 37 feet, 3 stories <u>or</u> 48 feet 3+1 stories Sub-District B: 37 feet 2+1 stories	For lots with frontage on Chestnut St: 37 feet 3 stories <u>or</u> 48 feet 3+1 stories	37 feet 2+1 stories	N/A
<u>Minimum</u> Building Height	N/A	N/A	N/A	Sub-District A: 2 stories, 27 feet	N/A	N/A	N/A
Floor Area Ratio	1.00 or as existing on 1/1/90, whichever is greater	0.70	N/A	2.00 by right 3.00 by special permit	1.50 by right 2.00 by special permit	1.20	1.00

Summary of Existing and Proposed Zoning

	EXISTING			PROPOSED			
Dimensional Standard	Center Business	Chestnut Street	Business	Needham Center Overlay	Lower Chestnut Street Overlay	Garden Street Overlay	Highland Avenue Business
Front Setback	Minimum 3 feet, or average of adjacent setbacks, whichever is smaller	Minimum 20 feet	Minimum 10 feet for lots existing on 4/14/52	Minimum 0 feet	Minimum 5 feet or average of setbacks within 100 feet, whichever is smaller	Minimum 10 feet or average of setbacks within 100 feet, whichever is smaller	Minimum 0 feet
Side and Rear Setback Adjacent to Residential Zones	Minimum 50 feet, including 25-ft. landscaped buffer closest to residential boundary	Minimum 50 feet, including 25-ft. landscaped buffer closest to residential boundary	50 feet for lots rezoned to B District after 4/15/52	Same as Center Business	Same as Chestnut Street, except: for lots adjacent to MBTA ROW, minimum 25-ft. setback and 10-ft. landscaped buffer	Minimum 10 feet side and rear	Same as existing
Building Coverage	N/A	N/A	Varies by class of use and building height, from 25% to 45%	N/A	N/A	N/A	N/A
Enclosed Parking	Included within FAR calculation; certain design standards also apply	N/A	Coverage increase by 2.5% for each 1 sq. ft. of enclosed parking	Underground parking exempt from FAR	Underground parking exempt from FAR	Underground parking exempt from FAR	N/A

Summary of Existing and Proposed Zoning

	EXISTING			PROPOSED			
Dimensional Standard	Center Business	Chestnut Street	Business	Needham Center Overlay	Lower Chestnut Street Overlay	Garden Street Overlay	Highland Avenue Business
Basic Parking Requirements	Per ZBL Section 5.1.2	Per ZBL Section 5.1.2	Per ZBL Section 5.1.2	<p>Per ZBL Section 5.1.2 except:</p> <p>No parking required for retail <800 sq. ft.</p> <p>Reduced parking for buildings with more than 40% of floor area located in upper stories</p> <p>Bike racks required for residential uses</p> <p>Payment in lieu of parking spaces to Off-Street Parking Fund</p>	Same as Needham Center Overlay	Same as Lower Chestnut Overlay	Per ZBL Section 5.1.2 (no change proposed)